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Consumer Concerns About Seafood

by

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Introduction

The seafood industry is greatly affected by consumers and their concerns. Consumer confidence regarding seafood can translate directly into increased or decreased demand for these products.

Developing public confidence regarding the quality and wholesomeness of seafood is a priority. It's time we gave a long hard look at the impact media has on the seafood industry. The fact is that negative coverage can wreak havoc with sales.

As consumers, we see and hear much that is related to health. A few years ago, some facts seemed so ridiculous that they were hard to believe, such as the ideas that cholesterol played a significant role in heart disease or that diet could have an affect on cancer. But, to the surprise of many, seafood has surfaced as a food that is not only nutritious, but is able to reduce some of the risks associated with cardiovascular disease and cancer.

Today's consumers are interested in making wise choices about healthy eating. The next time you're out dining, look around you. Notice the number of people eating seafood. Excuse the pun, but there is a "rising tide of interest in seafood," not only in restaurants, but in the home, too. National Fisheries Institute (NIF) data shows

that people are preparing and eating in the home twice the amount eaten in restaurants, although the restaurant figures are still very high.

Consumers who prepare seafood at home have come to appreciate the important role this delicious and delicate food plays, yet there are still many who are hesitant to prepare seafood at home or try species that are not familiar.

Statistics indicate that the health concerns of Americans are increasing. Per capita seafood consumption in the United States rose from 15.2 pounds in 1988 to 15.9 pounds in 1989. Magazines and newspapers are presenting the health claims of seafood and new research is continually in the news. Many consumers now understand that the more fish consumed, the lower the health risk. New findings introduced at the Second International Conference on the Health Effects of Omega 3 Polyunsaturated Fatty Acids reinforced early research on the importance of Omega 3s to health. They showed that the ratio of Omega 3 fatty acids to Omega 6 fatty acids in the diet is relevant to health and disease, though there is a great imbalance between the two. The American diet contains inadequate amounts of Omega 3 and excessive Omega 6. Omega 3 fatty acids are found in all fish, with fatty fish containing the highest concentration. The leaves of green leafy vegetables, flax and pumpkin seeds, soybeans, walnut oil and rapeseed or canola oils are also

sources of Omega 3s. Omega 6s are found in meats, dairy products, grains and polyunsaturated oils made from corn and safflower.

Seafood Consumption Demographics

WHO

- Singles
- Females
- 35 years and up
- Above average incomes
- DINKs - double income, no kids
- Married, no kids
- Live in or near large cities

WHAT

- Amount of seafood consumed:
1987 - 15.7 lbs.
1988 - 15.2 lbs.
1989 - 15.9 lbs.
- Seafood consumption goal:
2000 - 20.0 lbs.
- Products Consumed - Ranking: 1988
 1. Tuna (canned)
 2. Shrimp
 3. Cod
 4. Pollock
 5. Flatfish (Flounder/Sole)
 6. Clams
 7. Catfish
 8. Salmon
 9. Crabs
 10. Scallops
- Aquaculture:
1988 - 8% cultivated domestically
1989 - 11% cultivated domestically

WHERE

- Highest consumption:
New England, Pacific, and South Atlantic states
- Lowest Consumption:
West, North Central, and Mountain areas

WHEN

- During Lenten season
- During Fish Month Promotion in October

WHY

- Consumption increases with age (particularly in the 41-50 year group)
- Consumption increases with income
- People are preparing and eating in the home two times the amount eaten outside the home. (Data show outside consumption is still very high.)

FUTURE OUTLOOK

- Significant growth in fresh cultivated fish and seafood products
- Increase will be frozen seafood

Other important findings have also been made:

Fish oil decreases blood pressure in mildly hypertensive patients. The use of fish oils with anti-hypertensive drugs improves blood pressure even further.

Although the exact role has not yet been established, Omega 3 fatty acids in the form of fish oils decrease pain and provide overall improvement in rheumatoid arthritis. They also lessen scaling and inflammation of lesions in psoriasis.

The opportunity for consumers to take control of their lives is now greater than at any other time in history. Sound, educated choices about diets, exercise and stress control can minimize health risks and add years to an individual's life.

Consumers want to know the risks and benefits of seafood. They want the industry to provide education classes, workshops and seminars to help them gain knowledge and develop skills in the selection, preparation, utilization of seafood and seafood products. This information should be presented to participants in a way that is unbiased and accurate. After being presented

with the facts it is ultimately each person's responsibility to choose their own seafood consumption habits.

Health Benefits of Seafood

<u>Health Risk</u>	<u>Health Benefits</u>
<ul style="list-style-type: none">• Atherosclerosis• Heart Attack, Stroke• Arteriosclerosis• Bronchial Asthma• Infectious Diseases• Diabetes• High Blood Pressure/Hypertension• Other Diseases Being Researched:<ul style="list-style-type: none">PhlebitisPsoriasisMigraine headachesRheumatoid arthritisCertain cancers	<ul style="list-style-type: none">• High quality protein• Good source of Omega 3: (HDLs)• Good energy source• Low in calories• Low in total fat• Low in saturated fat• Low in cholesterol• Low in sodium• Nutrient rich in vitamins and minerals - B Vitamins, Niacin, Pyridoxine, riboflavin, B¹², Folicin, Pantothenic acidMinerals - potassium, phosphorous, magnesiumTrace minerals - zinc, fluoride, selenium, iodine, and copper

Assurance of Product Safety

The consumption of seafood is up to 15.9 pounds per capita per year. Does this mean consumers have confidence in the fish and shellfish they consumer? The answer is yes -- somewhat. Consumers have ridden a type of wave with the seafood industry and the negative media reports on seafood products. In late 1987, public confidence regarding the quality and wholesomeness of seafood products was low. Sales in the Mid-Atlantic region alone dropped 25 to 50 percent due to the continual negative reports of pollution, parasites, seafood-caused illnesses and the lack of a mandatory inspection program.

The Mid-Atlantic region suffered negative publicity again in the summer of 1988 when illegal medical waste dumping caused beach closings after waste washed up on the shores. Negative media coverage caused a feeling of "at risk" for consumers, which inevitably caused more economic consequences.

Various consumer advocacy and environmental groups have claimed that consumers are "at risk" because the seafood being consumed is not inspected, or it comes from contaminated waters. The seafood industry is threatened with long-term loss of confidence in seafood products

because of this continued onslaught of negative media coverage.

As we've seen in the past, negative media can cause serious problems. When it comes to seafood and safety issues, media perspective is not always good for the consumer. It is sometimes biased and does not present all the facts available and necessary to make informed decisions.

By now, almost everyone knows the health benefits of seafood. However, seafood can and does cause some food-borne illnesses. The cases are in unique situations and usually confined to certain geographic areas. Ninety percent of reported illness outbreaks are attributed to raw molluscan shellfish (oysters, clams, mussels), scombrototoxin and ciguatoxin.

Testimony was given by FDA Commissioner Frank E. Young, M.D., Ph.D, in which he stated that "the current negative perceptions in consumers' minds are not warranted when the health risk of seafood is compared with other food sources." His data shows that during the years 1973-1987, finfish and shellfish accounted for only five percent of all cases of food illness reported to the Centers for Disease Control. Contrary to public opinion, the number of outbreaks has not been increasing despite the increase in seafood consumption.

Individuals and companies whose livings depend on seafood sales *must* know the facts and be ready to answer any question about the product and the possible dangers of raw seafood.

The issues of illness caused by fish with nematodes (harmless unless eaten raw) or pathogenic bacteria are causing consumers to be concerned and confused. They know seafood is healthy and they want to eat more, but, due to negative media attention, they also feel it is unsafe and they are not being told the truth. This is one reason that many consumers have begun eating more aquaculture or farm-raised fish.

In light of these concerns, seafood consumption has not taken the giant step forward, nor will it until seafood purveyors are better educated to the concerns of consumers, industry problems,

and solutions necessary to increase product safety and quality. They must educate the consumer and media about industry implementation of inspection being made to change product quality and increase production.

The public is hungry for assurance of a quality product. They want to increase their knowledge about this excellent food source -- from inspection to handling, selection, preparation, storage and nutrition. They need to know what is happening and need to be assured that their seafood is safe and healthy.

What actions should be taken by seafood purveyors?

They should develop an improved inspection system that will provide state of the art assurance of product safety and compliance with fair packaging and labeling requirements.

They should establish regulations to prosecute severely anyone selling unsafe seafood or illegally possessing or selling seafood.

They should use risk communication, an interactive process of exchange among all parties--sharing of information and opinions about the existence, nature, form and severity of a risk.

RISK ACCEPTANCE

increases when

Consumer: (Trust) of

+

Seafood Purveyors (Industry & Product)

and

+

Government Involvement (Mandatory Inspection)

=

A Sense of Control (Less Risk)

This will occur among purveyors, media and consumers. All parties share in protecting the public's health and environment.

Until a mandatory inspection is established and in place, the simplest practice is for individual purveyors to be responsible for inspecting and testing their fish and seafood products and informing the public.

The National Fisheries Institute (NFI) points out that seafood safety is the responsibility of everyone, from the industry and government to the consumer who must properly handle seafood after purchase.

Seafood Variety, Quantity, Price and Size

What can the seafood industry do to help itself and the consumer? Expanded aquaculture facilities will provide an array of seafood in convenient sizes, reliable quantities and at reasonable prices all year. This source, as the industry has predicted, will push consumption to 20 pounds per person by the year 2000.

U.S. aquaculture production is rapidly growing, and in 1988 it was listed as the fastest growing component of the U.S. agriculture industry. Other statistics show that production reached 790 million pounds of fish and shellfish, worth \$600 million. As a percentage, that is an increase of 285 percent in 13 years.

Seafood Source magazine indicates that the rapid growth in aquaculture production is a result of the following factors:

Worldwide consumer demand increases while the harvest of wild stock remains static.

Aquacultured fish are relatively immune to large scale fluctuations in availability.

The aquaculture industry is developing many species (hybrid striped bass, bay scallops, tilapia), with help from the scientific community.

Aqua producers are now able to provide consumers with fresh fish year round.

The Blue Revolution, as it is sometimes called, provides 11 percent of the U.S. total seafood export production. For some time, the principal species grown in the United States have been catfish, crawfish, trout, and salmon. What is more impressive is the growth of such farmed crops as hybrid striped bass, tilapia, sturgeon, salmon and abalone. What were once barren and empty areas are now productive. The trout capital of the world is Idaho, and its dryland now produces tilapia -- a delicious lean meat, slightly sweet flavored fish. Minnesota's abandoned iron-ore quarries now produce salmon. Solar-powered aquaculture facilities in the desert are producing hybrid striped bass. In other areas, work is being done on cultivation of species such as halibut, cod and plaice (a popular European flounder).

Aquaculture will improve distribution of seafood. Producers will meet the need of consumers for fresher fish delivered more frequently. Farmed fish will reach every remote area of the United States because growers will be able to indicate when to harvest, buyers will be able to provide consumers with a variety of sizes, quantity and product forms at a workable price.

Consumers are concerned that there will not be enough seafood to meet the world demand. On a per capita basis, Americans eat less seafood than most other nations. The Japanese consume six times more seafood than Americans. No need to worry, for in the marketplace consumers will find more varieties of seafood from all over the world. As the U.S. seafood industry expands, "new" species will be introduced to American consumers who are hungry for protein but not fat or calories. Distribution of seafood will become more efficient.

Most consumers are familiar with only ten to 12 species, although there are more than 300 species traded daily. The industry thrives on variety and should concentrate on the species unfamiliar to consumers, such as shimaera, sea robins, painted sweetlips, leather jackets, mackerel and squid.

More products will become available at outlets across the country. Seafood will become more accessible to consumers even in the most remote areas of the country.

More Convenient Product Forms

Consumer attitudes are changing. They want first class quality, variety of product forms and availability. Fish consumption will continue to rise if seafood purveyors can attract the customer to the counter to show off the seafood.

Well staffed, open areas, attractive cases, and well-lighted seafood departments are pulling in the consumer. Quality seafood products such as steaks, fillets, whole fish, or sides, skinned or boned, pre-cooked or raw are there for the consumer. Whatever the customer wants, most departments will provide. A weight conscious person can get lightly breaded shrimp. Need oysters already on the half-shell or Cajun seasoned trout? Just ask -- it's done.

The number of stores selling seafood has risen almost 20 percent recently. Other supermarkets have expanded and remodeled their seafood departments to meet the increase of customer demands for seafood and convenient seafood products.

The industry and retail market should have knowledgeable staff to make it easy for consumers to heighten their awareness about seafood in areas such as eyeing and buying, food safety, storing, origins of seafood, preparation, species substitution and, of course, nutritional information about the seafood.

There should be more in-store cooking demonstrations that will catch the consumer's attention. This will teach and encourage them to buy, plus they will be able to taste the product before they buy. The consumer would like to see more breakfast items; better labeling that includes Omega 3, additive alert for allergies, sodium, sugar and fats; new products identified by a fluorescent sticker or flag that catches the consumer's attention; a seafood department manned for the full time that the store is open; and nomenclature, a better identification of species.

List all the names a species is known by. For example, monkfish is known as goosefish or anglerfish, and squid is known as calamari. This would educate the consumer about the various names of different fish. As they visit the market or other areas of the country or world, if they see an anglerfish they will recognize it immediately as a monkfish. Consumers would become more comfortable with purchasing or tasting seafood.

Consumer Requests For In-Store Preparation

Yesterday's seafood market and a few retail stores offered steamed to order crabs, lobsters, oysters and shrimp. This will not only continue but expand. Consumers want in-store preparation of seafood products and soon stores will go a step further. Tomorrow, a customer will have their cod steamed, salmon baked, and lobster broiled before they leave the store. This is another way for retailers to capture the consumer market, especially the "on the go" person who loves seafood but does not cook it at home. Another feature will be the addition of live fish tanks in the ordering or customer area. The idea is assurance of freshness. Customers will be able to select the swimming fish or shellfish they want to prepare. Talk about freshness -- this is it.

Better Packaging and Increased Shelflife

A report from National Fisheries, *Approaching 2001*, states, "...there is a need for better packaging and more sophisticated distribution." Seafood purveyors are finding more efficient ways to move products and provide higher quality products at the final destination. Old habits must be broken -- no more fish packed in bags, but instead fish packed in boxes on ice in refrigerated trucks. A closer control must be kept on temperature variations. Many seafood distributors are trying to increase their control over quality en route to destination by investing in their own fleet of trucks. The industry should advertise this information. Consumers want to know.

Better packaging will meet the consumer's need. A more sophisticated package will increase shelflife at the store and in the home. It will

provide more convenient options for the consumer and improve overall quality of the product.

Some packaging options being looked at include the following:

A retortable pouch, which is a light, flexible can, a near-ideal shelf-stable pack for campers, commuters, etc. So far the seafood industry has used it primarily for smoked products. However, consumers have to remember that the food inside is not fresh or raw, but cooked, as in any other can.

MAP (Modified Atmosphere Packaging), which is a means of extending the shelf life of fresh foods by packaging them in a carefully calculated mix of gases. U.S. food regulators are approaching modified atmosphere packs with caution because of the potential for spoilage. The special, low-oxygen gas mix in a MAP pack will greatly slow bacterial growth, but will not stop it.

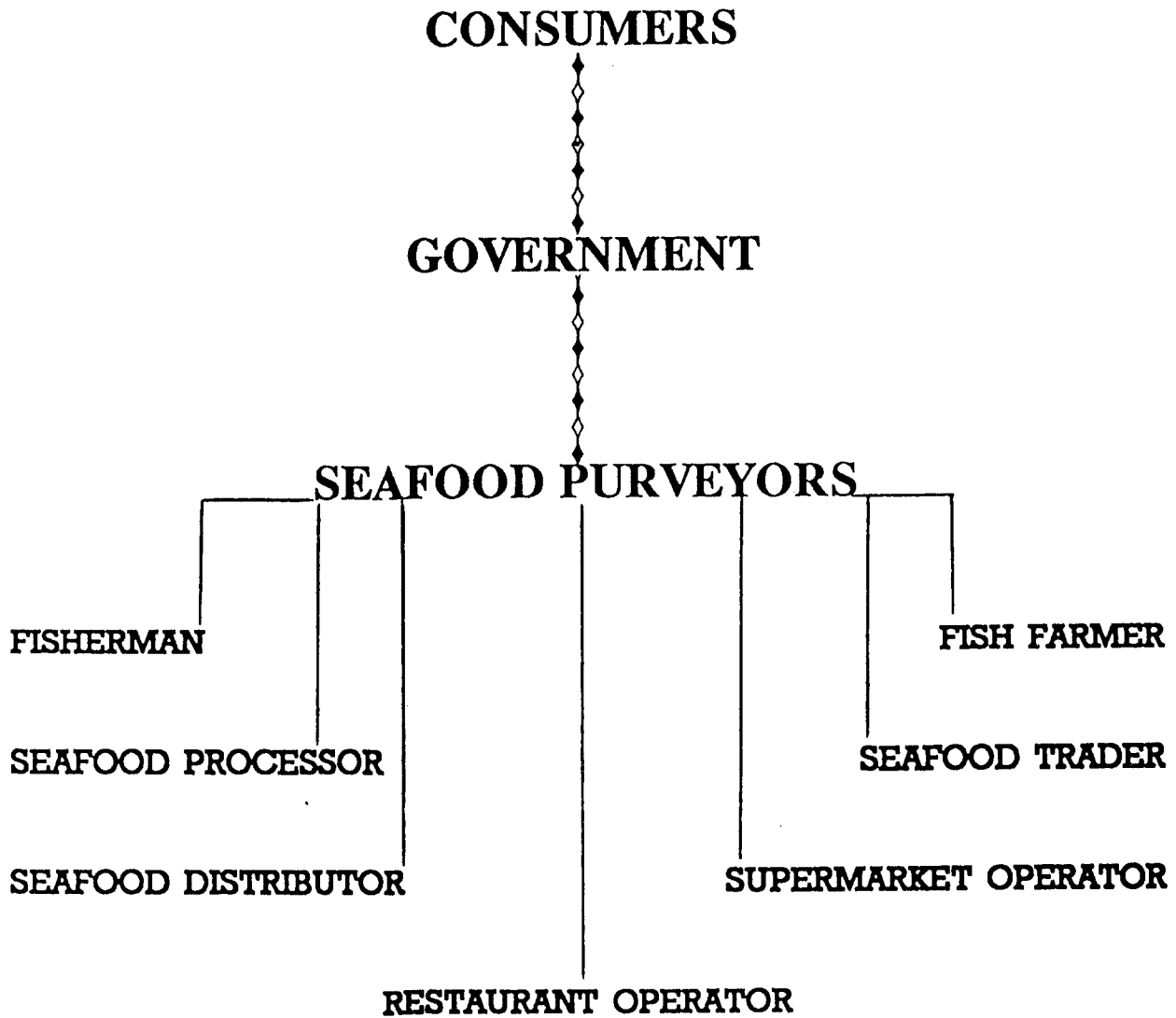
There are many plastics used for packaging. Plastic wraps are as individual as people. Each has its own weaknesses and strengths.

Julia Child was interviewed for an article in *Seafood Business* and gave these suggestions on what the seafood industry could do to improve the quality of seafood and get it to consumers: "Fish markets and supermarkets should provide 'fish packs' for consumers. Send them from the store carrying their fish packed with a gel pack or dry ice. Boats ought to have better icing facilities, and more boats should be capable of freezing. Consumers should keep a styrofoam container in their cars to keep seafood cool. They must do their part to maintain a good quality seafood product."

The Need for Naturally Healthy And Convenient Food

Improved food manufacturing technology will combine proteins of seafood with other foods for a healthier product. Research indicates that seafood proteins possess certain binders that other proteins do not (soy, for example). Products made from surimi, a pollock-based protein, have increased in production, sales and consumer appeal. In the future, surimi-based proteins will be used as ingredients in other foods and as the base for non-seafood products.

THE PARTNERSHIP OF THE 1990'S



Consumer Concerns About Seafood

Consumer Concern

- Assurance of product safety
- Seafood variety, quantity size
- More convenient product forms
- Customer request
- Better packaging
- More informative labeling
- Increased shelflife at home
- Improved overall product quality
- Worldwide consumer demand
- Naturally healthy and convenient food
- More seafood products
- Risk communication
- Food safety
- Specie identification
- Seafood department
 - Educated staff
 - Longer open hours

Seafood Industry Solutions

- Improved inspection program
- Expanded seafood and price and aquaculture facilities
- Provide raw, precooked, whole fish, steaks, fillets, boned skinned, breaded, half shell, seasoned, and ready to cook
- In-store preparation
- Better packaging materials
- Better labeling
- Proper handling and processing
- Improved product quality
- More worldwide varieties and distribution
- Improved technology within industry
- New products
- Risk communication
- Food safety and risk reduction
- Nomenclature--more standardized names
- Knowledgeable staff in seafood department;
same hours as supermarket

